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ABSTRACT

The College Board launched the National Task Force on Minority High Achievement in 1997. The primary mission of this Task Force has been to develop recommendations for how segments of U.S. society can work to increase the number of under-represented minority students who achieve at high levels academically. This report contains Task Force recommendations for action, along with a review of what has been learned over the years about why differences in educational outcomes persist among racial and ethnic groups in the United States. The Task Force has concluded that, if the number of top African American, Latino, and Native American students is to grow rapidly, promoting their achievement must become a priority at all levels of the educational system. Colleges and universities, along with state education systems, should create information systems designed to monitor progress and help inform efforts to design more effective strategies. At the K-12 level, the Task Force recommends that local, state, and federal leaders place the goal of increasing the number of top minority students high on the school reform agenda. The Task Force also recommends increased access to high-quality preschool and parent education programs and improved supplemental programs targeting minority students. The Task Force is calling for a policy of affirmative development across many sectors of society. An appendix contains a table with data about children of different racial/ethnic groups as measures by parents' education characteristics. (Contains 136 references.) (SLD)

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REACHING THE TOP

A Report of the National Task Force on Minority High Achievement

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Reaching the Top

A Report of the National Task Force on Minority High Achievement

The College Board
1999

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Preface

The College Board launched the National Task Force on Minority High Achievement in January 1997. The Board organized the Task Force out of recognition that relatively little attention has been given over time to a very serious educational issue—the chronically limited presence of African Americans, Latinos, and Native Americans among high achieving students at all levels of the educational system. The acute underrepresentation of these groups among top students has been underlined in recent years by the rollback of affirmative action admission policies at public colleges and universities in several states, including California, Texas, and Washington. In these states—and elsewhere in the nation—very small percentages of Black, Hispanic, and Native American students are graduating from high school each year with the superior academic records that individuals who gain admission to highly selective colleges and universities typically have.

The primary mission of the Task Force has been to develop recommendations for how several segments of American society, ranging from senior higher education officials to minority parents, can work more effectively to increase the number of underrepresented minority students who achieve at very high levels academically. In this report, we present our recommendations for action, along with a review of what has been learned over the years about why differences in educational outcomes persist among racial and ethnic groups in the United States and what kinds of proven or promising strategies are available for reducing these gaps.

This is the first of several reports and studies that will be released by the Task Force over the next few months. In contrast to this report, most of our additional studies will address specialized topics related to the high-achievement issue. For example, the Task Force will

be releasing a report this fall that reviews strategies available to colleges and universities for helping more underrepresented minority students perform very well academically on the undergraduate level. The Task Force also will issue a report that provides projections of the racial and ethnic composition of the under-18 population in 2015, disaggregated by social class (as measured by parent education and family income levels) and by native-born/immigrant status. That report is designed to provide a more nuanced picture of the students our educational system may be serving in coming years than is currently available.

In addition, the Task Force will release a study that reviews the minority high achievement situation during the crucial elementary school years, and which considers the potential of some educational reform strategies to increase the number of high achieving minority students at the elementary level. And, a study will be released of the role that supplementary education may be able to play in helping more minority students do very well in school during the K-12 years.

Eugene H. Cota-Robles and Edmund W. Gordon
Co-chairs
National Task Force on Minority High Achievement

Acknowledgments

On behalf of our colleagues on the National Task Force on Minority High Achievement, we would like to express our deep appreciation to Donald Stewart, the former president of the College Board, for his decision to establish the Task Force and for his enthusiastic support for our work. We are also deeply appreciative of the strong support for the work of the Task Force that Gaston Caperton has provided since he assumed the presidency of the College Board.

We are indebted as well to many scholars and researchers who have advised or conducted studies for the Task Force on a number of important aspects of the minority high achievement issue. This report has been heavily informed by their efforts.

We also extend special thanks to Scott Miller, director of the Task Force, who worked closely with us in the planning of this initiative from its inception and who had the primary responsibility for drafting this report. We also would like to acknowledge the efforts of Celeste Trinidad, administrative assistant for the Task Force, who has ably handled an enormous range of logistical and other work. We thank as well the numerous members of the College Board's staff for the support that they have provided for the development of this report.

Finally, we are indebted to the Exxon Education Foundation, the George Gund Foundation, the Joyce Foundation, the W. K. Kellogg Foundation, the Andrew W. Mellon Foundation, and the Rockefeller Foundation for funding the work of the Task Force.

Introduction and Summary of Recommendations

What is the most important educational challenge for the United States? Many would say that it is eliminating, once and for all, the still large educational achievement gaps among the nation's racial and ethnic groups.

There is good reason to hold this view because African-American, Latino, and Native American students continue to lag far behind their White and Asian American peers educationally by many measures. For example, these groups are heavily underrepresented among young adults who earn college degrees. As early as the second or third grade, they generally have much lower grades and test scores than Asians and Whites—patterns that persist over the course of their school careers.

It is also widely recognized that these differences in educational outcomes contribute to large disparities in life chances. Viewed solely from the perspective of employment and earnings, educationally underrepresented minorities have much less opportunity to pursue well-paying professional careers and are much more likely to hold low-wage jobs that provide few chances for advancement.

Efforts to improve educational outcomes for African Americans, Latinos, and Native Americans have been growing since the mid-1960s, and a great deal of real progress has been made. Nevertheless, the rapid changes that are taking place in the racial and ethnic composition of the nation bring a new sense of urgency to this work. These groups already make up nearly one-third of the under-18 population and are forecast to make up over two-fifths of this population by 2030. To put it quite simply, America is a diverse society in which educational differences have the potential to become a progressively larger source of inequality and social conflict. Many people now recognize that eliminating

these differences has become a moral and pragmatic imperative.

The National Task Force on Minority High Achievement was convened by the College Board to address a relatively neglected aspect of this situation: the reality that far too few Black, Hispanic, and Native American students are reaching the highest levels of educational achievement. The Task Force also has been asked to address a related issue: the fact that large disparities in achievement exist between students from these groups and White and Asian American students at essentially all socioeconomic levels. Until many more underrepresented minority students from disadvantaged, middle class, and upper-middle class circumstances are very successful educationally, it will be virtually impossible to integrate our society's institutions completely, especially at leadership levels. Without such progress, the United States also will continue to be unable to draw on the full range of talents in our population during an era when the value of an educated citizenry has never been greater.

Educators now have a number of proven and promising strategies for raising minority achievement, particularly in the early years of schooling when large achievement gaps first emerge.

In the following pages, the Task Force offers a brief definition of high educational achievement and elaborates on why it is important. We describe the scope of the shortage of academically very successful Black, Latino, and Native American students, and examine its implications from the perspective of the changing demographics. We then assess the results of ongoing efforts to improve academic outcomes for minorities and discuss strategies available for addressing the high achievement issue. Our report concludes with a series of recommendations for action aimed at a variety of societal participants.

A few words about the prospects for progress. This is simultaneously a difficult time and an opportune time to press for a major expansion of efforts to increase the number of high-achieving students from underrepresented groups. On the negative side, opponents of affirmative action have achieved several victories in the courts and at the ballot box in recent years that have restricted what public colleges and universities and school districts in a number of states can do to promote the academic development of underrepresented minority students. One immediate consequence is that it has become much more difficult to target those middle and high socioeconomic status (SES) students from underrepresented minority groups who are not coming close to reaching their academic potential. Although it remains possible to target economically disadvantaged students from all groups, the educational prospects of many extremely disadvantaged minority youngsters continue to be compromised by lack of access to high quality early childhood education, adequately resourced schools, and good health care. And, it seems unlikely that there soon will be a national political consensus to make the additional public investments required to address disadvantaged students' needs much more effectively.

Yet, despite formidable obstacles, there is much to be positive about. Educators now have a number of proven and promising strategies for raising minority achievement, par-

ticularly in the early years of schooling when large achievement gaps first emerge. Improving educational outcomes for minority students has gradually become a higher priority among many educators and educational policymakers. This priority is strongly supported by minority leaders and parents, as well as by many business and foundation leaders. For these reasons, the Task Force believes that the necessary knowledge, resources, and commitment exist in many quarters to produce much more rapid growth in the number of academically very successful minority students. As one Task Force member has said, we believe that "many Americans are prepared to support an expansion of efforts not simply to raise the floor of academic performance for minority students, but also to raise the ceiling."

The Task Force's recommendations for action reflect a deep commitment to the concept of affirmative development *—the notion that our nation has both strong moral and practical interests in taking an extensive array of public and private actions designed to ensure that underrepresented minority groups significantly increase their rate of educational progress.*

Our recommendations for action emphasize three areas. *First, the Task Force is calling for the higher education community to make raising the academic achievement of African-American, Latino, and Native American undergraduate and graduate students, including increasing the number of top students from these groups, a high priority—one that is as high as increasing their enrollment, retention, and graduation rates.* This will require colleges and universities to make much greater use of proven strategies for raising achievement levels and to develop additional approaches for this purpose.

Second, we are calling for elementary and secondary leaders to make increasing the number of underrepresented minority students who achieve at high levels, beginning in the primary grades, a major objective. This will entail selecting or designing school improvement strategies, in part, on the basis of their capacity to increase the number of top minority students.

Third, we are calling for a significant expansion and strengthening of supplementary education opportunities available to underrepresented minority students, from preschool through high school. High-quality after-school, summer, and other supplementary programs should be available for many more underrepresented minority students from across the social class spectrum, and should include students from all achievement levels.

The Task Force's recommendations for action reflect a deep commitment to the concept of *affirmative development*—the notion that our nation has both strong moral and practical interests in taking an extensive array of public and private actions designed to ensure that underrepresented minority groups significantly increase their rate of educational progress. In the years and decades ahead, one important measure of whether or not our society is providing more robust educational opportunities for African Americans, Latinos, and Native Americans will be if there is substantial growth in the number of students from these groups who achieve academically at very high levels.

Two Views of High Achievement and Why It Is Important

This report examines high educational achievement from two different, but linked, views. One is high *educational attainment*—earning bachelor's, graduate, or professional degrees. The other is high *academic achievement*—developing superior academic skills and subject mastery at each level of education.

It is fairly easy to define and recognize the importance of high educational attainment. Credentials play a gate-keeping role for entry into most professions. In many fields, from engineering to school teaching, a bachelor's degree is the minimum credential. Advanced degrees are required for entry into many desirable professions, such as law and medicine. In some areas of scientific research, postdoctoral study is increasingly essential.

On the other hand, defining high academic achievement and gauging its importance is less clear-cut. However, most people would agree that a student who earns an "A" in all or most courses in a demanding high school college preparatory program is indeed a very high academic achiever. Ranking in the top 10 or 25 percent of one's class is another common way to describe very high and relatively high academic achievement. Most people also would regard winning prizes in science or literary competitions as important demonstrations of academic excellence.

Obviously, a very practical reason for the importance of high academic achievement is that it enhances a student's college and graduate school prospects. Top high school graduates are more likely than their average or below average counterparts to enroll and graduate from college. They also have a better chance of being admitted to selective colleges. In turn, top bachelor's degree recipients have a better chance of getting into selective graduate and professional school programs. With the pullback from affirmative action in several states, very high academic achievement is becoming even more important for underrepresented minority students who are seeking admission to several highly selective public institutions and who want to gain access to the opportunities for advancement that this entails.

There is also extensive evidence showing that differences in job performance ratings and wages among people with similar educational credentials are related in part to differences in academic achievement and skill levels, as measured by standardized test scores, class rank in college, and even high school grades. This, of course, does not mean that a person's future career is predetermined by grades or test scores. Many other factors, such as motivation, perseverance, creativity, an ability to work well with others, connections, and plain old luck, come into play in powerful ways as well. Yet, it is undeniable that high academic achievement helps people gain access to high quality advanced education and, subsequently, to top-notch career options. Unsurprisingly, many people who excel in their studies later excel in intellectually demanding professions. This is true not only in the United States but also in other democratic societies with advanced economies.

High academic achievement is significant for reasons that go far beyond its value in

helping improve the life chances of particular individuals. At the societal level, it is important in terms of the overall productivity and fairness of the country's institutions (the material wealth and moral health of the nation, if you will). When a great many individuals—and entire groups of people—do not have a genuine chance to develop their academic talents fully, our society is much poorer for their lack of educational opportunities. Even more important, this is fundamentally unjust and is potentially an enormous source of social divisiveness, as the growing debate over affirmative action is beginning to show.

When a great many individuals—and entire groups of people—do not have a genuine chance to develop their academic talents fully, our society is much poorer for their lack of educational opportunities.

More Minority High Achievers—But Not Nearly Enough

To be sure, the number of Blacks, Latinos, and Native Americans who are academically very successful has grown markedly over the past several decades, whether measured by educational attainment or academic achievement. For example, as recently as the mid-1960s, only about 5 percent of the African-American young adult population earned a bachelor's degree, just one-third of the percentage doing so 30 years later. Nevertheless, not only is the representation of African Americans, Latinos, and Native Americans among top students still far below that of Whites and Asian Americans, their collective gains have had difficulty matching the growth of their share of the student-age population.

Educational Attainment

In the mid-1990s, underrepresented minorities received less than 13 percent of all the bachelor's degrees awarded from U.S. colleges and universities, up from about 9 percent in the early 1980s. Their share of professional degrees grew from 7 to 11 percent in the period, while their share of doctoral degrees remained at about 6 percent. At the same time, their share of the under-18 population grew from 24 percent in 1980 to 30 percent in 1995.

The difficulty that underrepresented minorities are experiencing in reaching parity in representation among higher education degree recipients is only partly related to the rapid growth of their share of the population. Another obstacle is that the percentages of White and Asian young adults who are earning bachelor's degrees have been growing rapidly, so underrepresented minorities must register large gains just to keep pace. For instance, the percentage of Whites in their mid-twenties who had earned bachelor's degrees grew from 23 percent in 1980 to 31 percent in 1995, while the percentage of African Americans who did so grew from 11 to 16 percent in the same period. About twice the percentage of Whites in their mid-twenties in 1995 had earned a bachelor's degree as had African Americans, Latinos, and Native Americans.

Over the long term, increasing the percentage of underrepresented minority students who earn bachelor's and advanced degrees depends heavily on increasing the percentage who graduate from high school. During the 1980s and 1990s, African Americans have made a great deal of progress in this area. In 1980, about 77 percent of the Black 25-to-29-year-olds had graduated from high school (or earned a high school equivalency diploma), compared to 87 percent of Whites. But by 1995, the percentage for Blacks had also reached 87 percent, while there had been no change for Whites.

During the same period, Latinos did not fare well overall. Only 57 percent of this cohort of young Latino adults had completed high school in 1995, compared to 59 percent in 1980. Yet, the large increase in immigrants from Mexico and other Latin American countries who have little formal education may be masking some significant progress. For example, Bureau of the Census data show that, in 1990, 78 percent of young Mexican American adults born in the United States had graduated from high school compared to a scant 38 percent of young adult immigrants from Mexico.

Immigration, however, has not been a factor in the low high school graduation rate for Native Americans. Bureau of Census data show that only 63 percent of young Native American adults in 1990 had graduated from high school. In contrast, 95 percent of young native-born Asian American adults had done so, the highest share of any native-born group. Moreover, 88 percent of young adult Asian immigrants had also graduated from high school.

Academic Achievement

Probably the best source of information on long-term academic achievement trends is the federal government's National Assessment of Educational Progress (NAEP) testing program, which has tested national samples of students in several subjects for about 30 years. In this period, underrepresented minorities have made substantial test score gains in some subject areas, notably reading and mathematics. Consequently, in the mid-1990s, the gap in average NAEP math scores between White and Black 17-year-olds was about a third less than it had been in the early 1970s. However, minority gains in the 1990s have generally been more modest than those registered in the 1970s and 1980s. In some instances, ground may actually have been lost relative to Whites.

In any case, in the last half of the 1990s, relatively small percentages of Black, Hispanic, and Native American high school seniors in NAEP test samples have had scores typical of students who are generally well prepared for college. Few in these groups have had scores consistent with being very well prepared academically for the most selective colleges and universities. For example, on the 1998 NAEP reading test, only about one-quarter of the Hispanic and Native American twelfth graders had scores at or above the "Proficient" level and only two or three percent reached the "Advanced" level. In contrast, nearly half of the Whites reached or exceeded the Proficient level and 7 percent reached the Advanced level. (The Proficient level indicates that students "have demonstrated competency over challenging subject matter"; the Advanced level indicates that

students have demonstrated "superior performance.") Similar patterns are found on the 1996 NAEP mathematics and science tests (see Table 1).

Table 1. Percentages of twelfth-grade students within the Proficient and Advanced achievement ranges on the NAEP 1998 reading test, 1996 math test, and 1996 science test

	Proficient			Advanced		
	Reading	Math	Science	Reading	Math	Science
White	40	18	24	7	2	3
Black	17	4	4	1	0	0
Hispanic	24	6	6	2	0	1
Asian	33	26	19	6	7	3
Native American	24	3	10	3	0	0

Source: Bourque, M. L., et al., *1996 Science Performance Standards: Achievement Results for the Nation and the States* (Washington, DC: National Assessment Governing Board, 1997); Donahue, P. L., et al., *NAEP 1998 Reading Report Card for the Nation and the States* (Washington, DC: U.S. Department of Education, 1999); Reece, C. M., et al., *NAEP 1996 Mathematics Report Card for the Nation and the States* (Washington, DC: U.S. Department of Education, 1997).

These scoring patterns mean that African-American, Latino, and Native American twelfth graders collectively constituted only about 1 in 10 of the students who scored at the Advanced level on each of the three tests, even though they made up about one-third of the age group. In fact, they made up only about one-tenth of those who scored at the Proficient level on the NAEP math and science tests. (They had a stronger showing on the reading test, where they made up about one-fifth of the Proficient group.)

NAEP data for twelfth graders are generally consistent with scores on the College Board's SAT® I college admission test. For example, underrepresented minority students accounted for only about 1 in 20 of the students in 1998 who had the very high SAT I scores typical of individuals admitted to highly selective colleges and universities.

The scoring patterns for twelfth graders on NAEP tests are also very similar to the NAEP scoring patterns for students in the fourth and eighth grades—the other grades typically tested by NAEP. These data make it clear that the large achievement gaps that persist among groups emerge very early in the students' school careers. Indeed, national studies have found that underrepresented minorities are not performing nearly as well as White students early in the first grade and that the very large gaps identified by NAEP develop rapidly during the first three years of school.

These data make it clear that the large achievement gaps that persist among groups emerge very early in the students' school careers.

Other traditional measures of academic achievement, such as grades and class rank, also show severe underrepresentation of African Americans, Latinos, and Native Americans among top students. For example, in a national sample of 1992 college-bound

high school seniors, 29 percent of the Asian Americans and 21 percent of the Whites had a B+ average or higher compared to only 10 percent of the Latinos, 5 percent of the Native Americans, and 4 percent of the African Americans.

Similar results have been found consistently in the College Board's Advanced Placement Program® (AP®). Each year, through the AP Program, several hundred thousand secondary students across the country take one or more of about 30 college-level courses at their high schools and sit for AP Exams in these subjects, which are administered by the College Board. Not only are Blacks, Hispanics, and Native Americans heavily underrepresented among students who sit for AP Exams, those who do are much less likely than White and Asian American students to perform well enough on the exams to receive college credit or advanced placement.

Prior Academic Performance As a Predictor of Future Academic Performance

As a general rule, the best predictor of students' future academic performance is their prior academic performance. Getting off to a good start in elementary school puts children on track to be good students in high school. Relatively few low-achieving elementary students become high achievers in high school. Top high school students are much more likely to do well in college, including graduating with honors, than individuals who are low achievers in high school. This pattern is an important reason why the substantial underrepresentation of Blacks, Hispanics, and Native Americans among high-achieving students and their heavy overrepresentation among low achievers, beginning in the primary grades, are such serious problems.

Unfortunately, doing well at the elementary and secondary level does not translate into as much academic success at the college level for underrepresented minorities as it does for Whites and Asians. Many studies over the years have found that the SAT I and other admission test scores of African Americans, Latinos, and Native Americans tend to "overpredict" their grades at historically White colleges and universities. That is, underrepresented minority students have college grade-point averages that are significantly lower than those of Whites and Asians with similar SAT I scores. Recent research indicates that this phenomenon holds true even for top African-American and Latino students who attend selective institutions. Later in this report we will have more to say about this very serious problem, including what can be done to eliminate it.

Socioeconomic Status As a Predictor of Minority Achievement

Socioeconomic status is generally one of the most powerful predictors of students' academic achievement. Students from low-income homes, or who have parents with little formal education, are much more likely to be low achievers and much less likely to be high achievers

than students from high-income families, or who have parents with bachelor's or advanced degrees. In one large national study, only 5 percent of the eighth graders whose parents did not have a high school degree had achievement test scores in the upper quartile, whereas over half of the students who had a least one parent with a graduate degree scored in the top quartile.

For the past 35 years, this pattern, coupled with the very high percentages of African-American, Latino, and Native American children living in poverty, has understandably led many educators and policymakers to give priority to school reform, early childhood education, and other strategies intended to improve educational outcomes for disadvantaged minority youngsters. But this is only part of the education and social class story for minorities. Going back to the 1960s, there is an extensive body of research showing that Black, Hispanic, and Native American students at virtually all socioeconomic levels do not perform nearly as well on standardized tests as their White and Asian counterparts. Significantly, some of the largest of these "within-class" test score gaps are often found at middle and professional class levels, at least when they are measured by the education of students' parents.

As shown in this evidence, the bottom line is that if African Americans, Hispanics, and Native Americans are to reach overall educational parity with Whites or Asians, including among top students, ways must be found to improve academic outcomes for all of their social class segments.

An example of this pattern is found in the twelfth-grade results for the 1994 NAEP reading test. At all parent education levels, African Americans and Latinos had much lower average reading scores than Whites. Moreover, the Black-White gap was much larger for students with a parent who has a college degree than for students with no parent who has a high school diploma. Similar patterns have been found on the SAT I (see Table 2).

Table 2. 1994 average NAEP reading scores for twelfth graders by their racial and ethnic status and the education levels of their parents

	Parent Education Level			
	Less than high school	Graduated from high school	Some education beyond high school	Graduated from college
White	274	283	294	302
Black	258	258	271	272
Hispanic	260	265	279	283
White-Black =	16	25	23	30
White-Hispanic =	14	17	15	19

Note: Differences in scores between groups were calculated before rounding. *Source:* Campbell, J. R., et al., NAEP 1994 Reading Report Card for the Nation and the States: Findings From the National Assessment of Educational Progress and Trial State Assessments (Washington, DC: U.S. Department of Education, 1996).

As shown in this evidence, the bottom line is that if African Americans, Hispanics, and Native Americans are to reach overall educational parity with Whites or Asians, including among top students, ways must be found to improve academic outcomes for all of their social class segments. As will be discussed later in this report, this will require addressing a diverse set of factors that are giving rise to both between- and within-social-class academic achievement differences.

Gender, a Complicating Factor in Minority Achievement Patterns

Many fewer women than men continue to complete bachelor's degrees in mathematics and several heavily quantitative fields, such as engineering and physics. And fewer females than males are performing at the very highest levels in mathematics in high school. But a growing majority of bachelor's degrees are being awarded to women, and they continue overall to earn higher grades than males at all levels of education. Many more boys than girls are classified as needing special education in grade school. Beginning in the first grade, males have long had markedly lower average levels of achievement in reading and writing than females, and many more males than females are among the lowest achievers in both areas.

Some of the male achievement problems are especially acute for underrepresented minorities. For example, while males in general were earning 45 percent of all bachelor's degrees awarded in the United States in the mid-1990s, Black males were earning only 36 percent of all such degrees received by African Americans. African-American and Latino males have particularly low average scores on NAEP reading tests.

In some respects, negative outcomes for males are more pronounced at low socioeconomic levels. (This is true in many industrialized nations, not just the United States.) For example, only two in five students from low-income families who sit for the SAT I are male. Because high percentages of underrepresented minority students are from disadvantaged families, these negative patterns are most acute for minority males. Efforts to increase the number of high achieving minority students need to take gender differences such as these into account.

Changing Composition of the U.S. Population Presents Educational Challenges

Since the late 1960s, high levels of immigration from many nations in Asia and Latin America have been contributing heavily to the rapid changes taking place in the racial and ethnic composition of the U.S. population. Large underlying educational differences among these immigrant streams have been presenting complex challenges to educators and policymakers working to reduce academic gaps among groups in our society. Importantly, a high percentage of adult immigrants from Asia have had college degrees

and relatively few have not completed high school, while the opposite has been true for immigrants from Latin America. This means that immigration has been reinforcing socioeconomic differences among racial and ethnic groups in our society associated with the academic achievement gaps among them. (The limited formal education of many immigrants from Latin American nations reflects the fact that most of these countries are able to provide access to K-12 education to just a fraction of their populations. For example, only about half of the children in Mexico complete the sixth grade.)

As a result of these patterns, the Task Force concluded that our recommendations should take into account how the student-age population may evolve in the first decades of the twenty-first century. We asked the RAND Corporation, a respected research and policy organization, to develop a forecast of the composition of the under-18 population in 2015, disaggregated by race and ethnicity, socioeconomic status, and immigration status, and to compare it with the actual composition of this age group documented in the 1990 census.

Consistent with forecasts by the Bureau of the Census that have looked only at possible racial and ethnic changes, RAND's projections suggest that by 2015 there will be very large increases in the number of Latino and Asian American children and youth, substantial growth in the number of African Americans, and a slight drop in the number of Whites. These projections also indicate that the overall social class composition of each group could strengthen somewhat. For example, each group is projected to have a higher percentage of youngsters with college-educated parents and a lower percentage from low-income families. (Data limitations prevented RAND from developing projections for Native Americans, but 1990 census and other available data suggest that they are likely to have social class patterns in 2015 that are much closer to those of African Americans and Latinos than to those of Whites and Asians.)

Despite these positive changes, Whites and Asians are projected to continue to constitute the overwhelming majority of the children and youth from high socioeconomic status homes in 2015, while Latinos and African Americans are projected to make up the overwhelming majority of low SES students (see Appendix). Notably, Whites and Asians are forecast to make up 83 percent of the children and youth that have parents with a college degree in 2015, down only slightly from 87 percent in 1990. Blacks and Latinos are projected to account for only about 17 percent of these students in 2015.

In contrast, the Latino and African-American share of students who have no parent with a high school diploma is projected to grow from 60 percent in 1990 to 78 percent in 2015. Moreover, the real story here is among Latinos. The projections suggest that the overall Latino share of this disadvantaged student segment could increase from 37 to 59 percent in the period. This would translate into growth from 2.8 million to 4.7 million Latino students who have no parent with a high school diploma. Significantly, in 2015, about four-fifths of this group of Latino students are projected to be from immigrant families—families in which the adults are not only expected to have little formal education, but many are also likely to have limited English proficiency.

If these demographic projections prove to be reasonably accurate, producing a marked increase in underrepresented minorities' presence among top students over the next 10 to 20 years will almost certainly be both an important objective and a difficult challenge for our society. Improving academic outcomes for disadvantaged minority youngsters also will undoubtedly remain one of the central requirements for maximizing progress in this area.

If these demographic projections prove to be reasonably accurate, producing a marked increase in underrepresented minorities' presence among top students over the next 10 to 20 years will almost certainly be both an important objective and a difficult challenge for our society.

Even though these projections indicate that African Americans and Latinos may constitute only about 17 percent of the students from homes with college-educated parents in 2015, they nonetheless suggest that there could be very large increases in the absolute number of Black and Hispanic students in this category in the 1990-2015 period. In these projections, the number of Latinos in the under-18 population with parents with college degrees triples, growing from about 700,000 in 1990 to nearly 2.1 million by 2015. The number of African Americans in this segment is projected to grow from nearly one million to about 1.7 million. Enormous absolute growth is also projected for Black and Hispanic students who have parents with one to three years of college. These projections indicate that nearly half of the African-American student-age population could have parents with at least one year of higher education in 2015, up from about two-fifths in 1990, while the Latino share could grow from about one-third to over two-fifths in the period.

Thus RAND's projections suggest that there may be unprecedented opportunities in the years ahead to increase the number of top underrepresented minority students from middle class families, since these students are not yet doing nearly as well in school, on average, as White and Asian middle class students. The challenge is to find ways to respond more effectively to the needs of these students while continuing to work harder to improve outcomes for the extremely disadvantaged.

Historical Perspective on Work to Raise Minority Achievement

As our report has emphasized, large educational gaps persist along racial and ethnic lines in the United States at the end of the 1990s. Nonetheless, the Task Force believes that it is important to remember not only that these gaps were much larger only a few decades ago, but that our society did not begin to organize itself in a substantial way to eliminate them until the middle 1960s—a mere 35 years ago. That was a time when no nation in the world possessed an extensive body of research-proven strategies for modifying educational systems and practices that could quickly raise the academic achievement of students from extremely disadvantaged or undereducated segments of society

to the levels of the most educationally successful groups.

It also is important to recognize that, despite the current debate over affirmative action, our public institutions have pursued relatively few education policies specifically targeted to minorities. Rather, most minority-oriented work has been pursued through initiatives designed for the disadvantaged in general. Two key examples are Head Start and Title I. Congress created Project Head Start in 1965 to provide nutritional, health, and early childhood education services to disadvantaged preschoolers; social services for their families; and parent involvement opportunities. Title I, which was established by the Elementary and Secondary Education Act of 1965, provides financial assistance to schools across the country with significant concentrations of poor children in order to help them improve educational services for these students.

In a relatively short period of time our society has learned a great deal about how minority educational outcomes can be improved, despite having made only modest investments in educational R&D.

We believe that our society should be investing even more in high quality early childhood education and promising school improvement strategies directed at disadvantaged children, since so many disadvantaged students are still having academic difficulty in school and high percentages of African-American, Latino, and Native American youngsters continue to grow up in poverty. At the same time, these programs are often not ones that easily lead to giving high priority to increasing the number of high achieving minority students. The educational needs of middle and high SES minority student segments are even further removed from the focus of such programs.

Finally, even with an expanded societal commitment to improving educational outcomes for disadvantaged and minority students, very modest amounts of money have actually been invested in educational research and development (and dissemination of best practices) for these and other human development purposes over the years. According to the National Science and Technology Council, all levels of government invested about $500 billion on the nation's children and adolescents under age 21 in 1995, almost two-thirds of which was devoted to K-16 education. Yet, the Council notes that only about $2 billion of this amount was spent on research and development, which is less than four-tenths of a percent. The Council estimates that private foundations added only $75 million more to this total. Moreover, education research does not command priority in this R&D spending. Federal expenditures on educational research in recent years have been only a few hundred million dollars per annum. As one Task Force member put it, "If money talks, we have barely been whispering with our investments in educational research." (Several organizations, including the National Research Council, the National Educational Research Policy and Priorities Board, and the National Academy of Education, however, have recently called for strengthening the nation's educational research efforts.)

As the following sections of this report demonstrate, in a relatively short period of time our society has learned a great deal about how minority educational outcomes can be improved, despite having made only modest investments in educational R&D. This should encourage us to redouble our efforts and our investments.

Factors that Influence Achievement Differences Among Groups

Since the 1960s, one of the big advances has been in our understanding of the sources of differences in academic achievement among racial and ethnic groups. With regard to expanding and improving efforts to increase the number of top underrepresented minority students, some of the most valuable insights concern five factors found to be strongly associated with student educational outcomes: 1) economic circumstances; 2) level of parents' education; 3) racial and ethnic prejudice and discrimination; 4) cultural attributes of the home, community, and school; and 5) quality, amount, and uses of school resources.

Economic Circumstances

When Title I was established in 1965, it reflected recognition among educators and government policymakers that poverty is strongly related to low academic achievement. Since that time, much has been learned about poverty's multiple impacts on student achievement. Importantly, researchers have learned that children experiencing chronic, long-term poverty are among the most at-risk educationally. These youngsters frequently have health problems that undermine learning. Their families also tend to move frequently, which means that many of these children experience serious discontinuities in their education, as they travel from one school to the next.

Researchers have also found that a high concentration of poor youngsters in schools is associated with lower achievement for poor and nonpoor students alike. But poverty concentration need not be extreme to have a negative impact. Research shows that in schools with a 25 percent student poverty rate, both poor and nonpoor youngsters do less well academically than their counterparts in schools with very low student poverty rates.

Researchers have learned that children experiencing chronic, long-term poverty are among the most at-risk educationally.

One well-known problem for schools serving large numbers of disadvantaged students is that they often simply do not have sufficient resources to meet their students' needs. However, another serious problem is that many of these schools have high student mobility (turnover) rates. When student turnover during the school year is high, the curriculum tends to slow down, which means that the students who do not move—not just the mobile students—have much less opportunity to learn. Such schools often have high turnover

among teachers and principals, which further undermines the quality of the academic program. Each of these factors can make it more difficult for poor and nonpoor students to do well in school.

Underrepresented minority students are much more likely to be poor or to attend high-poverty-concentration schools than White students. This means that poverty is taking a higher educational toll for both poor and nonpoor students from these groups.

Education of Parents

When Head Start was created in the mid-1960s, educators and policymakers were generally aware that many parents with college degrees have acquired knowledge and ways of thinking through their formal education that are helpful in preparing their children for school. In effect, many well-educated parents draw on these skills to provide an informal "preschool" at home for their children that offers valuable intellectual and social preparation for succeeding in the early elementary grades. Policymakers also realized that many parents with little formal education have great difficulty accumulating this kind of knowledge. This suggested that parent education programs and formal preschools should be designed for disadvantaged parents and their children in order to provide them with access to important knowledge readily available to educationally advantaged families.

Since the 1960s, there has been a rapid accumulation of information and insights into the numerous ways that well-educated parents (especially those with middle-class incomes) can help many of their children succeed at high levels academically. We know now that educationally sophisticated parents provide wide-ranging assistance to their offspring from infancy through college. Examples include reading regularly to their toddlers, seeking expert assistance in diagnosing possible learning disabilities in the primary grades, arranging for tutors in subjects in which their children are having difficulty or show great interest and promise in middle school, pressing high school officials to let their children take college preparatory classes, and taking their children to visit colleges that may be well-suited to the children's academic interests and temperaments. Few parents with little formal schooling and low incomes are in a position to provide these extensive supports.

Most students in the United States with well-educated parents are still White and Asian, while most of those with parents who have little formal schooling are African American, Latino, and Native American. Thus, parent education remains an area in which Asian and White students enjoy large advantages in the pursuit of high academic achievement.

Racial and Ethnic Prejudice and Discrimination

The United States is one of many diverse societies with a history of extremely damaging forms of racial and ethnic prejudice and discrimination. In America's case, prejudice and discrimination have long been major sources of educational differences among groups. Our nation's problems, historically, have not only included extremely discriminatory practices against some minorities, such as legally enforced school segregation, but also a

deeply ingrained belief among many members of the majority population that some minorities are less able to succeed in school for either innate or cultural reasons.

Fortunately, our schools are no longer segregated through force of law and many fewer people hold these corrosive beliefs. However, de facto segregation is the norm for millions of underrepresented minority students who attend school in large cities and rural areas. And a sufficient number of Whites still harbor doubts about the educational potential of some minority groups for these views to continue to take a toll on the academic performance of many minority students.

While it is difficult to quantify the overall negative impact of prejudice and discrimination on the educational fortunes of underrepresented minority students, we have strong reason to believe that it is large.

Researchers have identified at least two ways that these beliefs can be educationally damaging to underrepresented minorities. One, they can contribute to the low expectations that some educators have for how well underrepresented minority students can perform academically. Such expectations can lead some teachers and counselors to ask less of underrepresented minority students, including discouraging them from taking demanding college preparatory courses in high school.

Two, there is growing evidence that the belief that some groups may be intellectually inferior is taking a severe psychological toll on some minority students, including a number who have been high performers. This "rumor of inferiority" or "stereotype threat" seems to lead some minority students to perform less well than they are capable of doing in demanding academic situations. Others may avoid challenging academic environments, which comes at a great cost to their intellectual development. Significantly, the negative impacts of these beliefs do not seem to be confined to the most disadvantaged underrepresented minority students; they can undermine the achievement of high SES minority students as well.

There are other important dimensions of prejudice in our pluralistic society. One of the most important is that a number of people in most racial and ethnic groups simply hold a general dislike for some other groups. This undoubtedly contributes to residential segregation. And, owing to residential segregation, it is easy for these views to be perpetuated. They, in turn, can have painful consequences at our nation's colleges and universities, where many students encounter large numbers of people from other groups in the classroom and social environment for the first time. Because White students are still a large majority on most campuses, the negative views of some Whites can contribute to a perception that minorities are "unwelcome." Although hard to measure, this "lack of hospitality," as one member of the Task Force puts it, appears to undermine the academic performance of many minority students.

As discussed in the next section, prejudice and discrimination also can erode minority academic performance by contributing to an alienation from the mainstream among many extremely disadvantaged, as well as some other minority young people.

While it is difficult to quantify the overall negative impact of prejudice and discrimination on the educational fortunes of underrepresented minority students, we have strong reason to believe that it is large. Moreover, it is a special burden, one that majority students, even if they are from very poor families, are likely to have difficulty comprehending fully. The recognition that racial and ethnic prejudice continues to be a powerful negative educational force is an important reason why members of the Task Force remain fully committed to affirmative action.

Cultural Differences and Peer Influences

In recent decades, considerable attention has been given to the question of how cultural differences contribute to variations in educational outcomes among groups. Much of this work has been concerned with helping teachers change their pedagogical approaches and the curriculum in ways that are more consistent with the cultures of their students. These efforts have yielded valuable findings. For example, introducing demanding books by respected Latino authors into high school English classes has been found to contribute to greater educational success of Latino students.

Researchers also have been examining differences in culturally related experiences of students from different racial and ethnic groups, especially in family, community, and peer settings. They have looked not only at students from minority groups that are not doing as well academically as the White majority, but also at students from groups—especially of East Asian origin—that often do better in school than Whites. Their findings are likely to be valuable in the development of new strategies for increasing the number of high achieving students from underrepresented groups. For example, East Asian American high school and college students earn higher grades, on average, than other groups. Two direct reasons are that they spend much more time on their studies outside of school and are more likely to be part of academically oriented peer groups in which they work together on their schoolwork. (Spending more time on studies and being members of academically oriented peer networks have been found to be valuable for students, regardless of their race or ethnicity.)

Why are East Asian secondary and college students in the United States more likely than other groups to avail themselves of these strategies? One immediate reason is pragmatic: Many of these students are from immigrant families and communities that see education as the key to good jobs and economic success. But this can be only a partial answer, since cross-cultural studies have found that many students in East Asian countries exhibit similar study patterns.

An additional part of the answer may be found in research indicating that many East Asian American parents help their children learn to work together on school assignments, beginning in the early years of schooling—a cooperative learning approach that is much less common among Whites and other groups. Many East Asian parents also stress homework and structure their children's out-of-school time in ways that support learning through both informal and formal means.

A study commissioned by the Task Force illustrates how important this may be. In an East Asian American community in a major American city, about 300 nonprofit and for-profit after-school and weekend supplementary education programs were identified, from preschool through high school. The researcher concluded that the community had essentially organized a parallel educational system to the schools—and the parents were paying for most of these services.

A key message here is that one way to increase the number of high academic achievers from underrepresented groups may be to promote much wider use of out-of-school strategies used by the most educationally sophisticated or savvy parents and groups.

Researchers have also found that East Asian parents are more likely than Whites to train their children to believe that success is based on effort rather than innate ability. Consistent with this orientation, East Asian American parents are more likely to spend a great deal of time helping their children develop effort-based attributes that support school success—willingness to work hard, diligence, perseverance, thoroughness, and self-discipline.

It is important to recognize that many parents from virtually all other racial and ethnic groups do many of these same things to help their children become successful in school. Notably, this has been found to be true for many parents of African-American students who have excelled in engineering and science at a selective public university in Maryland. Thus, a key message here is that one way to increase the number of high academic achievers from underrepresented groups may be to promote much wider use of out-of-school strategies used by the most educationally sophisticated or savvy parents and groups. Extensive supplementary education systems that support the use of these strategies could be a central element in such an effort. Providing more school opportunities such as these is also important. For example, as will be discussed later in this report, some effective strategies, particularly at the college level, have already been developed for helping minority students become part of strong academically oriented peer groups.

At the same time, it should also be recognized that some students from underrepresented groups are less likely to use the strategies discussed here because they have become alienated from school over time. This evidently includes not only a number of disadvantaged students who live in highly segregated areas in which employment prospects are not promising, but also some poor and nonpoor minority students who live in racially and ethnically diverse communities that are relatively affluent. There is evidence that some of these underrepresented minority students come to view doing well in school as "acting White." For students who have been experiencing academic difficulties from the start of their school careers, this may be another reason to lower their academic effort, especially once they reach middle school or high school. For high achieving minority students in such settings, it may mean that they have less support from their peers for doing well in school than would otherwise be the case.

School Resources

Much has been learned since the 1960s about how student achievement varies as a result of the quantity, quality, and use of resources available to schools. One of the most important lessons is that increasing the amount of money spent on schooling can make a difference for disadvantaged and minority students, but changing how money is spent is often required as well.

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Making schools smaller in terms of enrollment, providing low student-teacher ratios in the primary grades, spending staff development money to help teachers learn to use a research-proven school reform or curriculum/instruction strategy, providing students with better educated teachers, and offering students an academically challenging curriculum are five examples of how increasing resources or using them differently can raise student achievement. In some of these cases, underrepresented minority students have benefited academically more than majority students. For example, a large-scale, long-term experiment to reduce pupil-teacher ratios in the primary grades in public schools in Tennessee has produced enduring achievement gains for participating students, and African-American students have made larger gains than Whites.

At the same time, while the achievement benefits from these changes have sometimes been considerable, they have not eliminated minority-majority achievement differences. In fact, in many schools and districts in which resources are most abundant, there are still wide achievement gaps between White and underrepresented minority students. Most notably, this is the case for middle and high SES White and underrepresented minority students in many affluent suburban districts and schools across the country. This is true even though the underrepresented minority students in these schools and districts are generally doing better academically than minority students attending public schools in low-income communities.

Constructing or Reforming Education Systems to Raise Minority Achievement

In addition to learning a great deal about factors that influence student achievement, much has also been learned since the 1960s about how an essentially new educational institution, preschool, and certain kinds of school and higher education reform or institutional change can help improve academic outcomes for minority students. In the following sections, we review some of what has been learned from a minority high achievement perspective.

Using Preschool and Parent Education Programs to Raise Minority Achievement

Reflecting the primary preschool interests of public policymakers, research and development in the preschool sector has focused on creating effective programs for the disadvantaged.

One of the biggest changes in the educational landscape since the mid-1960s has been the creation of a large preschool sector of the educational system. A related development is the proliferation of programs that help parents acquire knowledge and skills that can be used to support their children's educational development more effectively.

Reflecting the primary preschool interests of public policymakers, research and development in the preschool sector has focused on creating effective programs for the disadvantaged. From a high minority achievement standpoint, several points need to be made. First, while the long-term academic gains for disadvantaged children produced by the best model programs (e.g., High Scope/Perry School and Carolina Abecedarian projects) have been substantial, they have generally not been large enough to put youngsters on a high academic achievement trajectory in school. (But, high quality preschools may indirectly help many more children in the next generation perform at high levels, because more of the current generation of disadvantaged youngsters will be better educated parents.)

Second, the best model programs have been resource intensive. Yet, not enough public money has been available to ensure that most Head Start—and many other preschool programs—can provide the quality of service of the best models.

Third, since preschool programs have generally not been evaluated on the basis of whether they provide educational benefits for middle and high SES minority children, it is not clear what the range of benefits is for these youngsters.

Fourth, many minority youngsters from all socioeconomic levels do not yet have access to preschool programs. In 1996, about 63 percent of all African-American children and only 37 percent of all Latino children were enrolled in center-based preschool programs led by professional early childhood educators.

From a high achievement perspective, the evidence suggests that our society should be rapidly expanding access to high quality preschool for all underrepresented minority children. Programs serving middle and high SES minority youngsters also will need to be evaluated to determine what modifications should be made in them, if any, to maximize preschool's benefits for these children.

The situation is generally similar for parent education programs. Most highly regarded programs, such as AVANCE in Texas, provide educational services mainly to disadvantaged parents. Thus, there are strong incentives to expand access to such programs to more minority parents from all socioeconomic levels. There also is a need to evaluate the effectiveness of promising programs for middle and high SES parents.

Elementary and Secondary School Reform and Minority High Achievement

The United States has been engaged in a wide-ranging school reform movement for over 15 years. Two aspects of this movement are especially important from a minority high achievement standpoint. The first is the effort by state governments and school districts to raise educational standards for all students. The second is the effort by educators and researchers, who are primarily based at colleges and universities, to work with principals, teachers, parents, and others to devise school-level strategies for improving student performance.

Standards- and Assessment-Based School Reform

A central theme of the current period of educational reform is the need to raise academic achievement levels for all students. This emphasis on higher standards partly reflects the reality that, in general, individuals need higher skill levels than in the past to secure well-paying jobs. Many policymakers also are stressing high standards due to a concern that American students are not doing as well, overall, as their counterparts in several other nations, which they believe could have negative consequences for the long-term competitiveness of the U.S. economy. And many believe that improved academic outcomes are needed to help prepare students for citizenship in our increasingly complex democratic society.

Many states staked out a leadership position in the standards arena in the mid-1980s when they required high school students to take more demanding courses, including more college preparatory courses in several disciplines. Within a few years, policymakers in many states raised the ante when they began to develop curriculum content standards. National associations representing educators in specific disciplines, such as mathematics and science, assisted the states by developing new national curriculum standards for their fields.

Over the past decade, many states also have invested heavily in the development of proficiency standards for students to meet in each area of the curriculum and have been making similarly large investments to develop new standardized tests to assess students' progress. In some cases, these tests now carry "high stakes" for students because their scores determine whether or not they are promoted to the next grade or receive a high school diploma. The tests also have consequences for districts and schools because many states monitor how the student populations in each district and school are performing relative to their proficiency standards. In some states, a subpar performance can trigger state assistance to low performing schools. More punitively, in some states low performance can contribute to leadership and other staff changes in schools and even districts. In short, many state policymakers believe that one of the primary ways they can promote higher student achievement is to hold districts and schools accountable for the academic achievement of their students, and testing is at the center of this accountability system.

From a minority high achievement standpoint, there are two very important aspects of the standards-based approach to school reform. First, districts and schools in several states must now report test scores for each major racial and ethnic group. This expanded visibility of group test scores, coupled with the high stakes that some of the tests hold for students, is clearly putting much more pressure on local educators to improve minority outcomes than was the case 10 or 20 years ago. Second, should progress in the closing of minority-majority achievement gaps continue to be slow, the states themselves may come under much more intense pressure to provide more financial and other assistance to schools serving disadvantaged minority students (or to lower the stakes on the tests).

This expanded visibility of group test scores, coupled with the high stakes that some of the tests hold for students, is clearly putting much more pressure on local educators to improve minority outcomes than was the case 10 or 20 years ago

Standards-based-reform strategies have not been pursued long enough to determine how much help they can be for efforts to raise minority achievement levels. Encouragingly, in a few states, such as Texas and North Carolina, both minority and majority students have made marked overall gains on state or national tests, although available evidence indicates that the percentage of minority students achieving at very high levels is still small.

One of the most closely watched state approaches to information gathering for education policy purposes is the Tennesee Value-Added Assessment System (TVAAS). TVAAS provides a means of gauging the impact of districts, schools, and teachers on the academic achievement gains (as measured by test scores) of individual students. Using this approach, comparisons can be made of the gains that students at various achievement levels make when they are in the same classroom, in different classrooms in the same school, and in different schools or districts. Comparisons of the gains that are achieved over a period of years can also be made. TVAAS, for example, allows policymakers to examine whether previously high achieving students who attend several different schools are currently experiencing similar achievement gains. Policymakers and school administrators can also examine whether previously low-achieving and high-achieving students are making equivalent gains in particular schools or classrooms.

School-Level Improvement Strategies

Another major theme of the current period of educational reform is that, in order to raise student achievement, fundamental changes must take place inside the schools in such key areas as curriculum and instruction, teacher professional development, school organization, and home-school relations. Efforts that focus on helping principals and teachers improve their schools have grown rapidly over the past 15 years, though much important work of this kind dates back to the 1960s.

Many of these efforts are "whole-school-reform" initiatives; they are concerned with making changes that will benefit virtually all students in a school. Others are more limited reforms that are expected to benefit only some students. Many of each type of initiative are focused on improving the educational outcomes for disadvantaged students.

There are now several proven or very promising school-level reform approaches for improving academic outcomes for students. For example, in a recent review of evaluations of 24 well-known school reform models, the American Institute for Research (AIR) found strong evidence that three programs can help raise student achievement, as well as evidence that four more programs show real promise of producing gains. A number of other programs in the group also may eventually produce evidence of positive impact, but conclusions cannot be drawn from current evaluation data.

Most proven or promising school-level strategies tested with minorities have targeted disadvantaged students who are at risk of being low achievers. These strategies have typically not been explicitly designed to promote high achievement among disadvantaged minorities, nor have they targeted middle and high SES minority students.

Several points need to be made about the school-level reform knowledge base from a minority high achievement perspective. First, most proven or promising school-level strategies tested with minorities have targeted disadvantaged students who are at risk of being low achievers. These strategies have typically not been explicitly designed to promote high achievement among disadvantaged minorities, nor have they targeted middle and high SES minority students. (They also have generally not explicitly addressed gender-related achievement differences among disadvantaged minority students.)

Nonetheless, in a study commissioned by the Task Force, researchers at Johns Hopkins University found preliminary evidence that well-designed and well-implemented elementary school reform programs can help some disadvantaged minority students attain well above average achievement levels. Two of the reform strategies in the Task Force study were also found to be proven or promising in the AIR study: Success for All, which helps disadvantaged students become competent readers during the primary grades, and the School Development Program, which builds strong relationships between school staff and parents to promote students' academic and social development.

There is growing evidence that reformers should pay much more attention to helping disadvantaged minority students who are currently high achievers to continue to do well. A leading school performance assessment expert has found that, in many urban schools serving disadvantaged populations, students with higher test scores make smaller gains than those with low test scores. Research commissioned by the Task Force produced results consistent with this finding. But well-designed programs can make a difference. The High School Puente program in California, which provides English courses, coun-

seling, and mentoring tailored to the needs of Latino secondary students, is helping keep high achieving Latino students from disadvantaged circumstances on course for college.

School-level reformers have much work to do if they wish to promote a rapid increase in the number of underrepresented minority students who reach very high levels of academic achievement. It is encouraging, however, that some school reform strategies are showing promise of supporting minority high achievement, while the standards-based-reform movement is putting pressure on district and school leaders to reduce minority-majority achievement gaps.

An additional positive factor is the federal government's growing appropriation of funds to support use of proven reform strategies in schools in which a high percentage of the students are disadvantaged. Schools with 50 percent or higher poverty rates can use their funding from the $8 billion dollar Title I program to employ whole-school reform initiatives. Through the Comprehensive School Reform Demonstration Program, another $150 million is being invested in such programs in high poverty schools. However, no federal program targets schools with more moderate poverty rates (such as those in the 25 to 50 percent range) to help them make use of promising reform strategies, even though research suggests that both poor and nonpoor students in many of these schools are not achieving as well as they could.

Over the past decade, two public elementary schools in Baltimore—Barclay and Carter G. Woodson, which mostly serve disadvantaged African-American students—have been using the highly structured curricular and instructional program of the Calvert School. Calvert is a private day school in Baltimore that serves a mostly White, affluent student clientele that has traditionally achieved at very high levels. The results in the two public schools have been excellent. Using a number of standardized tests, student achievement in the two schools is now averaging in the 50 to 70 percentile range in several academic areas, which is 20 to 30 percentiles higher than the schools' students scored prior to adopting the Calvert approach.

Consistent with educational research, one source of this success is the demanding curriculum and associated teaching strategies. Students read a great deal in school, both textbooks and high quality children's literature. They also write daily and have daily mathematics assignments. Students work to a "zero error" standard—errors on assignments are corrected in school the morning after the assignments have been turned in. Monthly review of students' work by the faculty ensures that extra support is provided to students who may be falling behind.

As would be predicted by educational research, another source of success has been the attention given to providing teachers with the training and support needed to ensure that they are actually implementing the curriculum and using the

prescribed instructional strategies. This support is provided through extensive summer training and school-year assistance.

Also consistent with research, the two elementary schools have been struggling to cope with a high student mobility rate. With many new students entering the schools each year, it is often very difficult for the teachers to help newcomers get up to speed. Unsurprisingly, the gap between the newcomers' prior academic experience and the demands of the Calvert curriculum become progressively more difficult to bridge at the higher grades.

Creating Supplementary Education Strategies for Supporting High Minority Achievement

Another important aspect of the current period of education reform is the growing use of supplementary education to promote higher academic performance. By supplementary education, we mean both the informal and formal learning opportunities that children and youth have outside the regular school day and school year in the home, community, school, and many other settings.

The Task Force recognizes that there is a long history of schools, community organizations, churches, for-profit education providers, and other entities offering formal supplementary education services to students from all academic achievement and all socioeconomic levels. For minorities, much of the supplementary education for low achievers has been provided by their schools, via after-school and summer-school programs, by community organizations, and by churches. As part of their outreach efforts to increase minority enrollments on their campuses, colleges and universities have operated many of the formal programs for average and high-achieving minority students.

Supplementary programs in urban schools are one of the fastest growing parts of the supplementary sector. These programs are seen as an essential part of a strategy for helping more low-achieving students meet rising state proficiency standards. The federal government has been supporting some of this growth through its 21st Century Learning Community Centers initiative, which provides money to inner city and rural schools. In contrast, supplementary education offered by schools for average and high-achieving minority students is more limited in scope.

Remarkably little is known about the effectiveness of such programs. Few have undergone rigorous evaluation. One thing we do know, however, is that many high-achieving students from all racial and ethnic groups are beneficiaries of extensive formal and informal supplementary educational opportunities over time, many of which are provided directly or paid for by their parents. We also know that some of the most academically successful groups in our society have created a network of supplementary opportunities for their children that may best be described as a parallel educational system.

If underrepresented minorities are able to eventually reach parity among high-achieving students, a much more extensive set of supplementary education institutions and programs may be necessary. These programs for minority students should be deliberately designed to provide the breadth of supplementary opportunities available to many youngsters from more educationally advantaged and successful groups.

If underrepresented minorities are able to eventually reach parity among high-achieving students, a much more extensive set of supplementary education institutions and programs may be necessary.

Similar to the role they have played in developing effective whole-school reform models, much of the technical leadership for the construction of these supplementary education systems will need to come from university-based educators and researchers. The Task Force believes that if more educators would begin to turn their attention to this job, they would find that minority leaders and parents are prepared to share their knowledge about their children and communities.

It is essential that these programs be designed to serve students from all socioeconomic levels. It is also essential that they provide challenging developmental opportunities for low-achieving, average, and high-achieving students. And, it is essential that one priority of these programs be to help provide youngsters with the means to be academically successful, beginning in the primary grades.

The absence of extensive supplementary education systems designed to support high academic performance of minority students presents program development challenges and opportunities. One of the most productive approaches may be to adapt promising discipline-based curriculum and instructional strategies currently used in the schools for inclusion in supplementary programs. For example, given the importance of developing strong reading comprehension and writing skills at the elementary level (particularly in the primary grades), elements of the Calvert School's reading and writing program could be tested for use in supplementary education systems.

In mathematics, one promising approach may be to adapt Project SEED for supplementary education purposes. Project SEED has been proven to help elementary school students, especially disadvantaged minority youngsters, master abstract mathematical concepts in ways that will help them succeed in more advanced mathematics later in their school careers. Project SEED employs and trains engineers, scientists, and mathematicians to teach its curriculum in the schools in carefully prescribed ways. (Socratic discussion techniques are used heavily in the classroom.) While Project SEED has been developed for in-school use, there appears to be no technical reason why a similar program could not be delivered via a supplementary education system.

Promoting High Minority Achievement in Higher Education

Since the 1960s, minority progress in higher education has been measured primarily by whether or not enrollment, retention, and graduation rates have increased. Doing so has been absolutely essential, as African Americans, Latinos, and Native Americans have continued to lag behind the White majority in all three areas. Much less attention, however, has been given to underrepresented minority students' academic achievement in college, beyond the question of whether their grade-point averages (GPAs) are good enough to graduate. Few historically White colleges and universities have paid close attention to whether a significant number of underrepresented minority students are among their top graduates each year, or whether the minority students who are among the best-prepared members of each freshman class go on to enjoy the same level of academic success as their majority peers.

This lack of attention to academic achievement has been costly. As noted earlier in this report, there is extensive evidence that underrepresented minority students generally do not earn grades at historically White colleges and universities that are as high as White and Asian students with similar entering academic credentials (such as admission test scores). This pattern has been found at both the undergraduate and graduate levels.

On several campuses over the years, this pattern also has been found for academically well-prepared minority students, including individuals from high SES families. In their recent book, *The Shape of the River: Long-Term Consequences of Considering Race in College and University Admissions*, William Bowen and Derek Bok provide extensive confirmation of this pattern. In their study, African-American students at 28 selective colleges and universities graduated with significantly lower GPAs, on average, than their White counterparts with similar SAT I scores. Among these African Americans were many students who were well-prepared academically for selective institutions and who were from middle and high SES families. The Hispanic students in the study also had lower GPAs than White students with similar scores.

One very negative consequence of this pattern is that fewer underrepresented minority students are reaching the highest levels of academic performance in college than would otherwise be the case, even as they remain heavily underrepresented in the pool of top college-bound high school seniors. Although this problem has not been the focus of the higher education community, a number of individuals and institutions have developed programs over the years that address it either directly or indirectly. A high percentage of these programs have been designed for students majoring in engineering, science, and mathematics, reflecting the interests of many government agencies and corporations that have often provided financial support for them. For example, the staff of the Professional Development Program of the University at California at Berkeley created a strategy in the 1970s that enables promising underrepresented minority students to perform very well in freshman calculus. The Meyerhoff Scholars Program, founded at the University of

Maryland Baltimore County in the late 1980s, is enabling many academically well-prepared Black students to achieve at very high levels in engineering and science, and to go on to doctoral programs in large numbers. For a generation, Xavier University of Louisiana has enabled many of its undergraduate science majors to do quite well academically and go on to medical school or to graduate school in other health professions.

There is considerable evidence that, when well implemented, several programs are helping underrepresented minority students reach their academic potential in college, with many achieving at high levels.

The Task Force commissioned a study to examine the strategies used in these and several other programs and to review available evidence on their effectiveness. Only a few promising programs were found to have undergone extensive external evaluation. Nevertheless, there is considerable evidence that, when well implemented, several programs are helping underrepresented minority students reach their academic potential in college, with many achieving at high levels.

These programs are getting results for a number of reasons. They are concerned with both the academic and social development and integration of participating students. They stress scholastic excellence and encourage each student to do as well as he or she can. They place an emphasis on helping students succeed in their freshman year because a good start is essential for long-term success. To that end, they ensure that students develop solid mastery in subjects that provide the foundations for doing well in their majors. They help students build strong, academically oriented peer groups, through which students can work together on their studies. Strong student-faculty relationships are built and attention is given to providing good ongoing academic advisory services. (Participating in research on the undergraduate level is a valuable means of building student-faculty relationships as well as helping students prepare for graduate school.) Wherever possible, strong support is provided beyond the freshman year. Providing students with sufficient financial aid to concentrate fully on their studies is also important.

None of these elements is surprising, but the devil, as always, is in the details. The most successful programs have been carefully engineered, and often have been modified, again and again, based on internal assessments of their results.

The Task Force firmly believes that the experience of these programs provides evidence that much can be done to ensure that most minority students have a genuine opportunity to reach their academic potential—and that many become top performers on the undergraduate and graduate levels. For progress to be made on this issue, however, colleges and universities will have to give much more attention to minority achievement issues on their campuses. At a minimum, greater use of existing promising practices will be required. Selective colleges and universities have a special responsibility in this area because a high percentage of the most academically successful minority high school grad-

uates enroll each year in these institutions, as do many promising minority students who transfer from community colleges to four-year institutions.

The Task Force recognizes that the elimination of affirmative action at public colleges and universities in several states may make it more difficult to mount initiatives in this area for some institutions. However, several of the most promising programs for supporting high minority achievement serve multiethnic student populations, including some Whites and Asian Americans.

In the 1970s, the Professional Development Program at the University of California at Berkeley created the calculus workshop as a means of addressing the low achievement of African Americans and Latinos in calculus. Students took the calculus workshop at the same time they took the introductory calculus course required of students planning to major in science, mathematics, engineering, or technological (SMET) fields. The workshop provided students with an opportunity to go into much greater depth in calculus during their freshman year than would otherwise be the case and to fill any gaps in their mathematics preparation. It also helped the students develop strong peer support networks for use in the calculus course.

The immediate benefit of the workshop was that most participating students earned an "A" or a "B" in the freshman calculus course. From a long-term standpoint, it provided students with much stronger foundations in mathematics for use in subsequent quantitatively based courses. It also provided students with some of the skills they needed to pull peer-learning groups together on their own in future courses. The workshop helped underrepresented minority students learn how hard students have to work to do well in mathematics—something that not all of them understood. Because the workshops were racially and ethnically integrated, the success of the underrepresented minority students helped dispel negative stereotypes (among students and faculty members) about the capacity of these students to perform at high levels in mathematics and other academically demanding subjects. Finally, because the workshop was discipline-based, it helped mobilize some members of the mathematics faculty to address minority achievement issues in math.

A generation after the initial development of the workshop model, it represents one of the most important tools that can be used widely by colleges and universities to raise the achievement levels of underrepresented minority students—and to help eliminate the overprediction problem. To date, it is a strategy that has been used primarily in "gateway" courses in SMET fields (calculus, physics, biology, etc.). In the future, it almost certainly should be used widely in gateway courses in the humanities and social sciences.

Recommendations for Action

In only a few decades, our society has developed a number of promising strategies and strong leads for improving educational outcomes for underrepresented minorities. In addition, many people from several sectors of our society, including many educators, government policymakers, foundation officials, and business leaders, in addition to minority leaders and minority parents, now recognize the importance of eliminating minority-majority achievement gaps as quickly as possible. The proliferation of efforts inside and outside schools to raise the achievement of disadvantaged minority students during the current period of educational reform testifies to the growing number of people with this perspective.

Many people from several sectors of our society, including many educators, government policymakers, foundation officials, and business leaders, in addition to minority leaders and minority parents, now recognize the importance of eliminating minority-majority achievement gaps as quickly as possible.

Nevertheless, much too little attention has been given by our society to the limited presence of African Americans, Latinos, and Native Americans among the nation's most academically successful students. As a result, relatively few educational strategies have been demonstrated to help resolve this issue. Meanwhile, the antiaffirmative action movement is making it more difficult to address the high achievement issue in several states.

The socioeconomic composition of underrepresented minorities is presenting us with a mixed picture from a high achievement perspective. The expanding number of students from these groups growing up in middle and high SES families is offering some unprecedented opportunities to address the high achievement issue. At the same time, far too many Black, Hispanic, and Native American youngsters are still growing up in chronically disadvantaged conditions—conditions that put them at great educational risk. Truly high academic achievement is but a distant dream for most of these youngsters.

In these circumstances, Americans have compelling moral, social, and economic obligations and incentives to greatly expand both public and private investments in the educational development of African Americans, Latinos, and Native Americans. These investments should respond to the common and distinctive needs of underrepresented minority students from all socioeconomic levels. One priority of these public and private investments should be nurturing high achievement.

Consistent with the analysis presented in this report, the Task Force's recommendations for increasing the number of high-achieving students from underrepresented groups fall mainly into three categories: 1) Expanding efforts to increase the number of high-achieving African-American, Latino, and Native American students in colleges and universities; 2) building a substantial minority high achievement dimension into the school reform movement; and 3) expanding the use of supplementary education strategies as a means of supporting high academic performance among more minority students.

Our recommendations are directed mainly to the higher education community, the elementary and secondary sector, the preschool sector, the educational policy and research communities, minority leaders and parents, national and community organizations with interests in minority education, the foundation and business sectors, and the media.

Recommendations for Higher Education

1. *Senior officials of colleges and universities should make raising academic achievement levels of underrepresented minorities—including increasing the number of top minority students—a high operational priority, on par with increasing minority enrollment, retention, and graduation rates.* Taking this step will be especially important for many historically White colleges and universities, owing to the consistent research finding that the grade-point averages of African-American, Latino, and Native American students at these institutions are often significantly lower than similarly prepared White and Asian American students.
2. *Senior officials of colleges and universities should create consortia designed to promote much wider use of proven strategies for helping underrepresented minority students achieve at high levels and to take the lead in developing better strategies.* For example, consortia of institutions that are committed to maximizing the use of effective strategies among member institutions should be established. Extensive technical assistance should be provided to ensure that the strategies are well implemented. (Promising approaches include providing students with an active system of personal support and advising; opportunities to gain in-depth skills in areas, such as mathematics and analytical writing, that are central to success in their majors; opportunities to develop strong academically oriented peer networks; and sufficient financial aid to devote full attention to their studies.) State higher education policymakers should lend firm support to these efforts. All institutions should be committed to making use of the most effective strategies available for raising minority achievement. Some institutions should take the lead in providing dissemination services on best practices to the entire higher education community.
3. *Senior college and university officials should track achievement of all students and use this information to guide strategies focused on raising underrepresented minority achievement levels.* In addition to the usual indicators of grades and class rank, indicators of students' standing within individual courses, research experiences, and challenge of the students' curriculum should be considered. This information would help senior officials understand not only how their minority and majority students are developing academically, but also the extent to which subtle differences in opportunity to learn may exist at their institutions. States should establish similar information systems to inform their higher education policymakers concerned with raising minority achievement. These information systems should be as open as possible in order to help educators and researchers develop better practices.

4. *Historically majority-serving colleges and universities should collaborate with historically minority-serving institutions to gain insights into strategies that support the academic success of minority students.* Adapting curriculum and teaching strategies used by some historically minority-serving institutions may be a fruitful approach for a number of historically majority-serving institutions. Reaching out for assistance to institutions in the home countries of immigrant students may also be beneficial.
5. *Four-year institutions should work more closely with community colleges to identify and recruit promising minority students, and then ensure that supports are in place to enable them to reach their academic potential.*
6. *Financial aid packages should be studied to determine what combinations best support high academic achievement, not just graduation rates, for all students, but especially for underrepresented minority students because so many are economically disadvantaged.*
7. *Leaders of colleges and universities should encourage their donors to support initiatives designed to raise academic performance, especially of underrepresented minorities.*

Recommendations for Elementary and Secondary Education

1. *A priority objective of local, state, and federal education leaders and policymakers should be equal representation of African Americans, Latinos, and Native Americans among the most academically successful students, and policies should be evaluated against this goal.* Pursuit of this objective will require monitoring minority representation among top students and factors that shape opportunities to learn, such as access to college preparatory courses in high school. School improvement strategies should be selected in part for their capacity to increase the number of top minority students.
2. *Federal, state, and local educational leaders and policymakers should ensure that reform strategies found to be promising in schools serving economically disadvantaged students are evaluated and considered for implementation in schools serving significant percentages of underrepresented minority students, regardless of their income level.* Determining the extent to which these strategies help increase the number of high achieving minority students in high poverty concentration schools and in schools with other socioeconomic profiles should be given immediate attention by policymakers. Much greater attention also should be given to helping schools make effective use of promising practices.
3. *At the federal level, the Department of Education should make raising the achievement of underrepresented minorities, including increasing the number of top students from these groups, a high priority in educational research and development.* Key objectives should be to identify, to help disseminate, and to help fund the development of school improvement and other educational strategies that can be used effectively in a wide variety of settings to raise the achievement of male and female minority students from all socioeconomic levels.
4. *Leaders of school districts and schools with similar minority student populations should form consortia to address common concerns and strategies for increasing the number of high achieving African-American, Latino, and Native American students.* Examples are urban

districts with large numbers of children from disadvantaged Mexican immigrant families, rural districts and schools serving Native American students who live on or near tribal lands, and urban/suburban districts with mixtures of high and low SES students from several racial and ethnic groups.

5. *Federal policymakers should develop a method for providing schools in which 25 to 50 percent of the students are disadvantaged with resources to help implement promising whole-school reform strategies.* No federal program currently targets these schools for this purpose, despite evidence that many poor and nonpoor students (many of whom are minority) in such schools are underperforming academically. Any federal funds eventually allocated to support school reform in schools with 25 to 50 percent poverty rates should not come from existing programs, such as Title I, that are already serving disadvantaged students.

Recommendations for Supplementary Education

1. *The educational research and policy analysis communities, in partnership with national and local organizations concerned with education, should design, identify, and disseminate supplementary education programs in many communities that would provide a parallel educational system to the schools for many underrepresented minority students, from preschool through high school.* Although most of the current interest in after-school programs is focused on low-achieving disadvantaged students, efforts to expand supplementary education should target minority students from all socioeconomic levels and also be concerned with supporting high achievement. These programs should reflect the specific circumstances, needs, and perspectives of the local communities—especially those of the parents and children—that they serve.
2. *Community organizations should play a leading role in providing a more extensive mix of multiyear supplementary education programs for underrepresented minority students.* Several of these organizations should provide national leadership in this field by ensuring that their programs go through extensive design, testing, and evaluation. This will mean forming partnerships with entities that have expertise in these areas.

Recommendations for Early Childhood and Parent Education

1. *Leaders in the early childhood and parent education program sectors and government policymakers should work to expand access to high quality programs in these areas to underrepresented minority children and parents, regardless of socioeconomic level.* This is important because minority students from all socioeconomic levels are not doing as well academically as their majority peers in the primary grades.
2. *Policymakers and researchers should assess the value of promising early childhood and parent education strategies for underrepresented minority students from all socioeconomic levels.* Although a number of strategies have been proven to have educational benefits for disadvantaged minority children and parents, much less is known about their effectiveness for other minority socioeconomic segments.

Recommendations for Minority Leaders and Parents

1. *Leaders of national and local minority organizations and minority parents should become much more vocal advocates for increasing the number of African-American, Latino, and Native American students who enjoy very high levels of educational success.* In addition to their advocacy for more access to high quality elementary and secondary school curriculum and teaching and for higher enrollment in colleges and universities, they should press for growth in the number of underrepresented minority students who are superior performers in school at all levels of the educational system.
2. *Leaders of respected national minority organizations should build or strengthen their capacity to provide information on successful educational strategies for raising the achievement of Black, Hispanic, and Native American students.* As the number of proven higher education, elementary and secondary education, and supplementary education strategies grows, national and local minority organizations and minority parents will need access to these findings from trusted sources as they pursue advocacy work with policymakers and educators. Minority community organizations and parents also will need this information to provide more effective supplementary education for their children.

Recommendations for Foundations and Government Agencies

1. *Private foundations with a focus on education should make increasing the number of high-achieving African-American, Latino, and Native American students a funding priority.* Because public investments in efforts to increase the number of high-achieving minority students are still limited, foundations have a crucial role to play in this area. Foundations should work collaboratively in cases in which large investments are required, while generally focusing on one or a few key aspects of the minority high-achievement issue in order to get the benefits of specialization. They should encourage individual donors to provide support in this area as well.
2. *Agencies of the federal government, such as the National Science Foundation and the National Institutes of Health, that have resources to invest in education should support efforts to increase the number of top minority students in their fields of interest.* Where feasible, the agencies should work in collaboration with private foundations.
3. *Private foundations, international organizations such as the World Bank, and national governments should explore ways to promote more rapid expansion of elementary and secondary education systems in several nations in Latin America and the Caribbean that currently have the capacity to provide K-12 education to only a fraction of their populations.* The fact that many immigrants to the United States from these countries have very little formal education is a reminder that the overall health of our region of the world is dependent on expanding educational opportunities in many of these nations, in addition to improving minority educational opportunities in our own society.

Recommendations for Business

1. *Business leaders should become strong advocates for increasing the number of top students from underrepresented minority groups because of its importance for producing the next generation of leaders in business and other fields.*
2. *Corporations should work directly to increase the number of academically very successful minority students through their philanthropy and through their summer and cooperative employment programs for undergraduate and graduate students.*

Recommendations for the News Media

1. *The news media should expand coverage of the underrepresentation of minorities among top students. This should be done by minority news media as well as the general news media.*
2. *The media should provide a complete picture of the high-achievement issue, including the extent of the problem, its underlying causes, promising strategies for addressing it, and the real progress being made.*

Pursuing Affirmative Development

In this report, we have emphasized that increasing the number of academically successful African-American, Latino, and Native American students is essential for the development of future generations of leaders in many sectors of our society. We also have emphasized that focusing on the high-achievement issue is a powerful way to bring attention to the reality that many male and female underrepresented minority students from across the socioeconomic spectrum, at all levels of the educational system, continue to encounter formidable obstacles—from poverty to prejudice—to reaching their full academic potential.

The continued educational underdevelopment of so many segments of the African-American, Latino, and Native American communities makes a very strong case for expanding their access to good schools and to high quality colleges and universities, the latter of which has been a primary focus of affirmative action. But expanded access does not necessarily translate directly into higher academic achievement. Thus the Task Force recommends that an extensive array of public and private policies, actions, and investments be pursued, which would collectively provide many more opportunities for academic development for underrepresented minority students through the schools, colleges, and universities that they attend, through their homes, and through their communities. We summarize this as a commitment to *affirmative development*.

Our emphasis on steps that many societal actors and sectors can take to increase the number of high achievers from these groups reflects a belief that a policy of affirmative development can emerge almost informally, yet powerfully, through the pluralistic processes of our society. Indeed, we believe not only that it can and should emerge, but that it is emerging.

Appendix

The following table is reproduced from the forthcoming report of the National Task Force on Minority High Achievement, *Projected Social Context for Education of Children: 1990–2015*, by Georges Vernez and Richard Kroll of RAND. For the underlying analysis that produced this table, Vernez and Kroll categorized children on the basis of the highest level of education of one of their parents. For example, in the case of children in the category "<12 years of parents' education," neither of their parents have completed 12 years of school. However, for children in the category "13-15 years of parents' education," both parents may be at this level (but not higher), or one is at this level and the other at a lower level.

Number of Children Age 0-17 by Parents' Education Characteristics

Parents' Demographic Characteristics		Parents'	1990 - Census		2015	
Race/Ethnicity	Nativity	Education	Number	Percentage	Number	Percentage
Asian	Native	<12	10,865	4.8	21,392	2.9
		12	53,473	23.6	153,939	21.1
		13-15	78,768	34.7	275,534	37.7
		16+	83,611	36.9	279,571	38.3
		Total	226,717	100.0	730,435	100.0
	Immigrant	<12	245,109	16.1	409,907	10.9
		12	242,079	15.9	485,724	12.9
		13-15	334,928	22.0	847,199	22.5
		16+	697,214	45.9	2,025,174	53.7
		Total	1,519,330	100.0	3,768,005	100.0
Black	Native	<12	1,485,598	20.2	1,174,662	12.2
		12	2,844,561	38.6	3,757,900	39.2
		13-15	2,224,387	30.2	3,350,539	34.9
		16+	817,190	11.1	1,312,290	13.7
		Total	7,371,736	100.0	9,595,392	100.0
	Immigrant	<12	205,328	18.8	293,494	16.1
		12	378,435	34.6	601,250	32.9
		13-15	329,283	30.1	587,058	32.2
		16+	181,200	16.6	343,322	18.8
		Total	1,094,246	100.0	1,825,124	100.0
Hispanic	Native	<12	579,987	20.7	971,550	18.3
		12	998,072	35.6	1,862,355	35.0
		13-15	880,917	31.4	1,803,568	33.9
		16+	343,236	12.2	683,610	12.8
		Total	2,802,212	100.0	5,321,083	100.0
	Immigrant	<12	2,219,575	47.5	3,683,571	35.5
		12	1,213,818	26.0	2,813,625	27.1
		13-15	843,776	18.0	2,476,837	23.9
		16+	400,305	8.6	1,397,023	13.5
		Total	4,677,474	100.0	10,371,056	100.0
White	Native	<12	2,470,827	6.2	1,150,725	3.0
		12	11,255,393	28.2	9,394,658	24.6
		13-15	13,532,808	33.9	13,562,388	35.5
		16+	12,617,807	31.6	14,042,456	36.8
		Total	39,876,835	100.0	38,150,227	100.0
	Immigrant	<12	288,830	9.4	127,598	3.5
		12	757,621	24.8	662,030	18.1
		13-15	960,598	31.4	1,191,181	32.6
		16+	1,049,745	34.3	1,668,298	45.7
		Total	3,056,794	100.0	3,649,107	100.0
Total	Native	<12	4,547,277	9.0	3,318,329	6.2
		12	15,151,499	30.1	15,168,852	28.2
		13-15	16,716,880	33.2	18,992,029	35.3
		16+	13,861,844	27.6	16,317,927	30.3
		Total	50,277,500	100.0	53,797,136	100.0
	Immigrant	<12	2,958,842	28.6	4,514,570	23.0
		12	2,591,953	25.0	4,562,629	23.3
		13-15	2,468,585	23.9	5,102,275	26.0
		16+	2,328,464	22.5	5,433,817	27.7
		Total	10,347,844	100.0	19,613,291	100.0
Total		<12	7,506,119	12.4	7,832,899	10.7
		12	17,743,452	29.3	19,731,481	26.9
		13-15	19,185,465	31.6	24,094,304	32.8
		16+	16,190,308	26.7	21,751,744	29.6
		Total	60,625,344	100.0	73,410,428	100.0

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Parents' Demographic Characteristics		Parents'	1990 - Census		2015	
Race/Ethnicity		Education	Number	Percentage	Number	Percentage
Asian		<12	255,974	14.7	431,299	9.6
		12	295,552	16.9	639,662	14.2
		13-15	413,696	23.7	1,122,733	25.0
		16+	780,825	44.7	2,304,745	51.2
		Total	1,746,047	100.0	4,498,439	100.0
Black		<12	1,690,926	20.0	1,468,155	12.9
		12	3,222,996	38.1	4,359,151	38.2
		13-15	2,553,670	30.2	3,937,597	34.5
		16+	998,390	11.8	1,655,613	14.5
		Total	8,465,982	100.0	11,420,516	100.0
Hispanic		<12	2,799,562	37.4	4,655,122	29.7
		12	2,211,890	29.6	4,675,979	29.8
		13-15	1,724,693	23.1	4,280,405	27.3
		16+	743,541	9.9	2,080,633	13.3
		Total	7,479,686	100.0	15,692,139	100.0
White		<12	2,759,657	6.4	1,278,323	3.1
		12	12,013,014	28.0	10,056,688	24.1
		13-15	14,493,406	33.8	14,753,569	35.3
		16+	13,667,552	31.8	15,710,753	37.6
		Total	42,933,629	100.0	41,799,334	100.0
Total		<12	7,506,119	12.4	7,832,899	10.7
		12	17,743,452	29.3	19,731,481	26.9
		13-15	19,185,465	31.6	24,094,304	32.8
		16+	16,190,308	26.7	21,751,744	29.6
		Total	60,625,344	100.0	73,410,428	100.0

NOTE: Does not include 18-24 year olds.
Source: 1990 Census, Dynamic Population Model.

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Memorandum of Comment

Leon Lederman:

We have been working on high school science curricula (*Science*, 10 July 1998, Vol. 281, p. 178; *Education Week*, 16 June 1999, pp. 56, 43) and have discovered that some 70 schools (that we know of) do rational science sequence: ninth grade, physics; tenth grade, chemistry; eleventh grade, biology. Some of these schools have been "doing it right" for upwards of 12 years. Many of these schools tell us that the most dramatic effect is on women and minority students, poor students, and, in general, students who come into high school without strong, positive math and science experience. If these anecdotal data hold up, there is another clue that course content *is* important to our issue.

Reaching the Top: A Report of the National Task Force on Minority High Achievement

Executive Summary

Introduction

The College Board organized the National Task Force on Minority High Achievement in 1997 to study and make recommendations for addressing a crucial, if little known, national issue: the chronic shortage of African-American, Latino, and Native American students who achieve at very high levels academically. Because of this shortage, the vast majority of students who earn high grades in school, who score highly on standardized tests, and who earn bachelor's and advanced degrees are still White and Asian American.

In creating the Task Force, a group of 31 distinguished leaders from education and other sectors, the College Board recognized that until many more students from these underrepresented groups become high achievers, it will be virtually impossible to integrate completely the professional and leadership ranks of our society. Our nation also will not come close to tapping the full range of talents of our population in an era when the value of an educated citizenry has never been greater and the minority share of the population is growing rapidly.

During their research and deliberations over the past two years, members of the Task Force found the minority high achievement problem to be far-reaching. It extends to the academic underachievement of minority students at virtually all socioeconomic levels. Even minority students who have done very well in high school are often unable to maintain the same high level of academic achievement in college.

The Task Force has concluded that the limited presence of Blacks, Hispanics, and Native Americans among top students is a product of several forces, including intense poverty experienced by many minority youngsters, schools with inadequate resources, racial and ethnic prejudice, the limited educational resources of many minority families and communities, and even cultural differences.

Encouragingly, however, a number of proven or promising strategies for raising minority achievement levels are now available. Thus, there is every reason to believe that substantial growth in the number of top minority students can be achieved in the future. *Making substantial progress will require the pursuit of an extensive array of public and private policies, actions, and investments. These initiatives collectively provide much more opportunity for academic development for underrepresented minority students through their schools, colleges, universities, homes, and communities. The Task Force summarizes this as a commitment to* ***affirmative development****. This commitment reflects a recognition that underachievement among minority students will need to be addressed wherever it occurs and with every means available. It will require leadership from a*

diverse group of societal actors, ranging from minority parents and communities to officials of higher education institutions.

Dimensions of the Minority High Achievement Problem

A bachelor's degree and usually an advanced degree are now required for entry into most professions in this country. Yet, African Americans, Latinos, and Native Americans remain heavily underrepresented among higher education degree recipients. In 1995, they accounted for only 13% of the bachelor's degrees, 11% of the professional degrees, and 6% of the doctoral degrees awarded by U.S. colleges and universities, despite making up about 30% of the under-18 population.

A similar situation exists in terms of school grades and standardized test scores. Among high school seniors in 1998, Blacks, Hispanics, and Native Americans made up only about one-tenth of the students who scored at the highest level on the federal government's National Assessment of Educational Progress (NAEP) reading, math, and science tests. That year, these groups accounted for only about one in twenty of the students who had very high scores on the SAT I, scores typical of individuals admitted to highly selective colleges and universities.

Moreover, this pattern of heavy underrepresentation of these groups among top students emerges rapidly in the early years of school and changes little thereafter. For example, minority-majority test score gaps on NAEP tests in the fourth grade are very similar to those found on NAEP tests in the twelfth grade.

Educators have long recognized that minority-majority academic achievement gaps are associated in part with the high percentages of African-American, Latino, and Native American students growing up in disadvantaged circumstances. This is an important factor, because students from low-income homes, or from families in which the parents have little formal education, generally do much less well in school than students from advantaged families. This pattern explains why efforts to raise minority achievement levels have focused heavily over the years on urban school districts that serve large numbers of disadvantaged minority youngsters.

But this is only part of the story. At virtually all social class levels, underrepresented minority students are not doing nearly as well in school as their White and Asian American counterparts, particularly as measured by NAEP and other standardized tests. Significantly, much lower percentages of both poor and middle-class minority students are high achievers than is the case for Whites and Asians.

Since most top students in the United States and other industrialized nations are drawn from educationally and economically advantaged families, the much lower than expected performance of middle-class students from underrepresented groups is a very serious matter. It is made even more serious by the fact that the number of middle-class African-American and Latino students is growing—and they are not doing nearly as well as

European Americans or Asian Americans in affluent suburban school systems across the country that have historically had many high achieving White students.

Another significant dimension of the minority high achievement problem is at the college level. Research has documented that African American, Latino, and Native American students earn significantly lower grades at traditionally White colleges and universities than White and Asian students who have similar college admission test scores. Importantly, this pattern has been found among top Black and Hispanic students attending selective institutions. Thus, while increasing the number of top minority students at the elementary and secondary school levels is essential, these gains will be diluted if many students are subsequently unable to continue to achieve at high levels in college.

Sources of Achievement Differences

Efforts to eliminate educational differences among groups must address the enormous challenges facing poor children, their families, and the schools that serve them. This is especially true for efforts to eliminate the shortage of minority high achievers. The Task Force found that one of the greatest poverty-related obstacles is family and school instability. Poor families tend to move frequently in urban areas, and the associated school changes disrupt their children's education.

Because of the high turnover of students in low-income schools, the pace of the curriculum often slows down, which undermines learning even for the students who do not move. Teachers are often less experienced, have fewer credentials, and turn over more rapidly in these schools. With Latinos and African Americans expected to become an increasingly large majority of disadvantaged students in the years ahead, the consequences of poverty on racial and ethnic achievement gaps almost certainly will continue to be substantial.

The Task Force believes that differences in education levels of parents are another significant source of racial and ethnic achievement gaps. Parents who have earned college degrees tend to know much more about how to support their children's educational development than do parents with a high school education or less. Well-educated parents often are able to do many things for their children—such as read extensively to their preschoolers, seek out tutors, or help their children gain access to college preparatory classes—that can be especially helpful in fostering high achievement.

European Americans and Asian Americans still account for most students who have parents with college degrees, and Latinos and African Americans constitute the majority of students who have parents without high school diplomas. Finding ways to reduce the impact of these parental skill gaps may be an essential part of efforts to increase the number of top students from underrepresented groups for years to come.

The Task Force found compelling evidence that racial and ethnic prejudice and discrimination continue to take a toll on the achievement of minority students in several ways. One way is through the lower academic expectations that some teachers may have for African-American, Latino, and Native American students than for White and Asian students. Another way is that some underrepresented students' confidence and performance in demanding academic situations may be eroded by the longstanding negative stereotype that their groups are less academically capable than White students for innate or cultural reasons. An additional concern is that some disadvantaged minority students may lower their academic effort partly out of a belief that success in school is only for White or Asian students.

The Task Force also looked closely at the growing evidence that cultural differences contribute to achievement gaps among groups. Some of these differences are school-related, such as having a curriculum that does not effectively tap students' cultural experiences. Others relate to differences among groups in how families and communities support their children's academic development. For example, using their own resources, the most academically successful groups provide much more extensive supplementary education opportunities than less successful groups, from preschool through high school. Some also are more effective at helping their children learn how to work together to improve their academic performance. This can contribute to stronger peer support for high academic achievement.

Although definitive assessments of the impact of these factors on group achievement gaps are not yet available, the Task Force concluded that collectively these factors are having a major impact on the underrepresentation of minorities among top students.

Strategies for Improving Minority Achievement

The Task Force reviewed strategies that are being pursued in the current period of educational reform to improve minority achievement, including strengthening preschool and parent education programs, raising elementary and secondary school academic standards, and pursuing school-level changes in such areas as curriculum, instruction, teacher professional development, and home-school relations. The Task Force found that most of these efforts are targeting disadvantaged minority students who are at risk of achieving at low levels. For example, this has been a primary focus of efforts to expand early childhood education and parent education programs.

Unsurprisingly, these efforts also tend to be evaluated in terms of how many low-performing students are brought to acceptable achievement levels. Little attention is given to whether these efforts have a capacity to increase the number of high-achieving disadvantaged students. Addressing unmet educational needs of middle- and high-income minority students is largely outside the focus of this work.

Nonetheless, the Task Force found evidence that some elementary school reform strategies, in particular, can help increase the number of disadvantaged students who

perform at well above average achievement levels. These strategies tend to have academically rich curricula and instructional approaches that offer students sufficient opportunities to master key knowledge and skills (such as reading). They also may stress the development of strong home-school relationships. And, they tend to emphasize teacher development and support, in order to ensure that the programs are implemented as intended.

State efforts to raise educational standards hold promise of helping to increase the number of top minority students, because many states are now monitoring achievement patterns at the district and school level by race and ethnicity. But these monitoring systems have not yet begun to focus heavily on minority representation among top students.

Similar to school reform, many efforts to expand after-school and other supplementary education opportunities for minority students are focused on programs for helping low-achieving disadvantaged students. This is increasingly true in large urban school systems in which many disadvantaged minority students are at risk of being retained in grade as education standards are raised. However, the Task Force believes that some of these out-of-school interventions have the potential to help improve the academic performance and productivity of a wide range of minority students.

In higher education, the Task Force also found little institutional attention being given to efforts to increase the number of high-achieving minority students. This is occurring despite growing evidence that many of the most academically promising African-American and Latino students are not performing as well as their European American and Asian American counterparts. Yet, the Task Force also found that several proven and promising programs exist at colleges and universities around the country for promoting high academic performance among minority students. These programs often provide students with an active system of personal support and advising; opportunities to gain in-depth knowledge and skills in areas such as mathematics that are central to success in their majors; opportunities to develop strong academically oriented peer networks; and sufficient financial aid so that students can devote full attention to their studies.

Recognizing that a great deal remains unknown concerning the causes and dynamics of academic underproductivity in some groups of ethnic minority students, the Task Force also recommended that the College Board lead a program of research and development focused on better understanding and facilitating high academic achievement in African-American, Latino, and Native American students. The R&D program should include:

- A competitive program of solicited research investigations guided by a study group responsible for issuing RFPs and reviewing proposals;
- A Consortium of Ethnic Minority Scholars to study the correlates of high, mid-level, and low academic achievement in several groups of African-American, Caribbean American, Latino, and Native American students;

- A Consortium of Education Research Scientists and Practitioners to design and conduct research and evaluation studies which will inform the work of the Network of Suburban/Urban School Systems, a network organized to mount a concerted attack on the problem of minority student academic underproductivity;
- A pre- and post-doctoral fellowship program designed to encourage and support scholars who will study the problems related to ethnic minority students' academic underproductivity.

Recommendations for Action

The Task Force has concluded that, if the number of top African-American, Latino, and Native American students is to grow rapidly, promoting high minority achievement will need to become a priority at all levels of the educational system. In addition, underrepresented minority students will need access to a much expanded set of supplementary education opportunities outside the schools.

In higher education, the Task Force is calling for senior college and university officials to make raising minority achievement, including increasing the number of top students, a priority on par with increasing minority enrollment, retention, and graduation rates.

Operationally, this not only will require a commitment to eliminating differences in achievement between similarly prepared minority and majority students but the creation of organizational capacities designed to address them. The Task Force recommends that colleges and universities organize consortia to promote widespread use of strategies available for helping minority students perform at high levels. Colleges and universities, along with state education agencies, should create information systems designed to monitor progress and to help inform efforts to design more effective strategies.

At the K-12 level, the Task Force recommends that local, state, and federal educational leaders place the goal of increasing the number of top minority students high on the school reform agenda. From an operational standpoint, this means testing and selecting promising elementary and secondary school reform approaches partly from the perspective of whether they help increase the number of minority high achievers. It also means testing and using the best of these strategies in a wide range of schools, from those serving high concentrations of disadvantaged students to those with more middle-class populations.

The Task Force recommends that policymakers work to expand access to high-quality preschool and parent education programs to underrepresented minority children and parents from all socioeconomic levels, not simply the disadvantaged.

The Task Force recommends that national and community organizations concerned with improving minority education work with educational reformers and researchers to expand

and strengthen supplementary education opportunities available to underrepresented minority students, from preschool through high school. Although many after-school, weekend, and summer programs are currently designed to serve low-achieving disadvantaged youngsters, much of the expansion of supplementary education also should target high-achieving and above-average students from all social classes. The objective should be to provide supplementary education opportunities for underrepresented minorities that are equivalent in scope and quality available to many youngsters from the nation's most academically successful groups.

The Task Force recommends that minority leaders and parents become stronger advocates for school reform and supplementary education approaches for increasing the number of top minority students. Where feasible, minority parents should become more directly involved in providing or arranging for supplementary education for their children.

Because public investment in the creation of strategies to increase the number of top Black, Hispanic, and Native American students is still very limited, the Task Force recommends that foundations make substantial investments in this area. Corporations also should provide more philanthropic support for such initiatives, as should government agencies in a position to invest in minority education in their fields of interest.

Conclusion

The continued educational underdevelopment of so many segments of the African-American, Latino, and Native-American communities makes a very strong case for expanding their access to good schools and to high-quality colleges and universities, the latter of which have been a primary focus of affirmative action. However, as the Task Force has found, expanded access does not translate directly into higher academic achievement. This is why the Task Force has issued a wide-ranging set of recommendations that, collectively, will provide many more opportunities for academic development for underrepresented minority students through the schools, colleges, and universities they attend, through their homes, and through their communities. This is what the Task Force means by instilling a commitment to a policy of affirmative development across many sectors of society. It is a policy that not only can and should emerge but is already emerging.